

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A rotary connector comprising:
a first part;
a second part rotationally coupled to said first part to form an interior of the rotary connector;
a first flat cable having a single ribbon conductor;
a second flat cable having multiple conductor wires, wherein said first and second flat cables are housed within said interior of the rotary connector and each of said first and second flat cables extend in a circumferential direction about an axis of rotation of the rotary connector; and
an over current protection device housed within an integral space of said rotary connector and configured to provide over current protection for at least one of the first and second flat cables.
2. (Previously Presented) The rotary connector of Claim 1, wherein said over current protection device consists of a single fuse configured to provide over current protection for said at least one of the first and second flat cables.
3. (Previously Presented) The rotary connector of Claim 1, wherein said first flat cable comprises a high current capacity single conductor ribbon cable.
4. (Original) The rotary connector of Claim 1, wherein said integral space comprises a recess formed in said interior of the rotary connector.

5. (Previously Presented) The rotary connector of Claim 4, wherein said recess is separate from an annular space in said interior used to house the first and second flat cables.

6. (Original) The rotary connector of Claim 4, wherein said over current protection device snaps into said recess.

7. (Previously Presented) The rotary connector of Claim 1, further comprising a bus bar coupled to said first and second flat cables, said over current protection being integrated with said bus bar.

8. (Previously Presented) The rotary connector of Claim 7, wherein said over current protection consists of a single fuse configured to provide over current protection for said at least one of the first and second flat cables.

9. (Currently Amended) ~~A rotary connector comprising:~~
~~a first part;~~
~~a second part rotationally coupled to said first part to form an interior of the~~
~~rotary connector;~~
~~an electrical cable housed within said interior of the rotary connector;~~
~~an over current protection device housed within an integral space of said~~
~~rotary connector and configured to provide over current protection for said electrical cable;~~
~~and~~
~~a bus bar coupled to said electrical cable, said overcurrent protection being a~~
~~single fuse and being integrated with said bus bar~~ The rotary connector of Claim 8, wherein
said bus bar comprises:

a first conductor electrically connected to said electrical cable; and
a second conductor electrically insulated from said first conductor and
configured to be connected to a power input to said rotary connector, wherein said over
current protection device electrically connects said first and second conductors.

10. (Original) The rotary connector of Claim 9, wherein said over current
protection device comprises a blade fuse, said rotary connector further comprising a
intermediate terminals connected to said first and second conductors and configured to
electrically connect with said blade fuse.

11. (Withdrawn) The rotary connector of Claim 10, wherein said over current
protection device comprises a pico fuse.

12. (Withdrawn) The rotary connector of Claim 9, wherein said over current
protection device comprises a surface mount chip fuse.

13. (Withdrawn) The rotary connector of Claim 9, further comprising a heat sink
feature configured to remove heat from the bus bar.

14. (Withdrawn) The rotary connector of Claim 13, wherein said heat sink feature
comprises .8mm thick copper contacts used for said first and second conductors.

15. (Withdrawn) The rotary connector of Claim 13, wherein said heat sink feature
comprises sink fins.

16. (Withdrawn) The rotary connector of Claim 13, wherein said heat sink feature comprises a heat pipe.

17. (Withdrawn) A steering wheel assembly comprising a rotary connector according to any one of Claims 1-16.

18. (Withdrawn) A rotary connector comprising
a first part;
a second part rotationally coupled to said first part to form an interior of the rotary connector;
an electrical cable housed within said interior of the rotary connector; and
means for protecting said electrical cable from over current, said means being housed within an integral space of said rotary connector.

Claims 19- 21 (Canceled)

22. (Previously Presented) The rotary connector according to claim 1, wherein the at least one of the first and second flat cables provided with over current protection is said first flat cable, which is configured to provide input and output high current to the rotary connector.

23. (New) The rotary connector of claim 1, wherein each of the first and second flat cables comprises an input cable length and an output cable length.

24. (New) The rotary connector of claim 1, wherein at least one of the first and second flat cables comprises a plurality of flat cables.